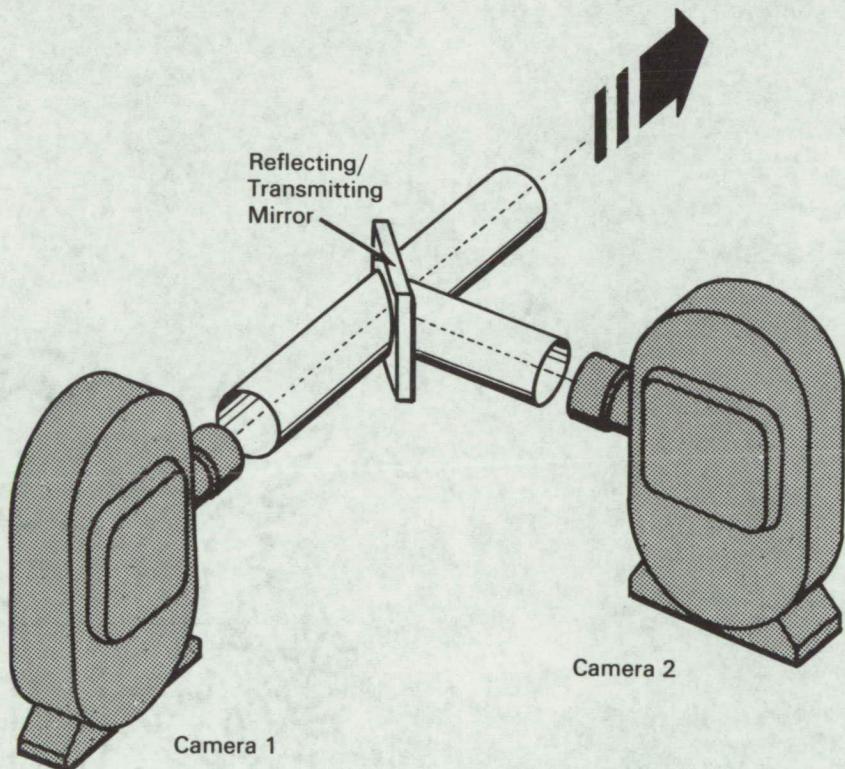


NASA TECH BRIEF



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Beam Splitter Used in Dual Filming Technique



The problem:

To simultaneously photograph an event with two cameras, where space or focal conditions prevent the ordinary mounting and focusing of more than one camera.

The solution:

A reflecting/transmitting mirror so arranged that two images of the object are available for photographing from two different positions.

How it's done:

A tubular tee is intersected at its junction by a reflecting/transmitting mirror mounted at an angle of 45° with respect to each tee section centerline. The longer tubular section sees the object directly through the transmitting angle of the mirror, while the shorter tubular section sees the image of the object off the reflecting angle of the mirror.

(continued overleaf)

Notes

1. This device has been used successfully to obtain streak and frame studies of combustion in F-1 thrust chambers.
2. Where the object requires illumination, one tube could be used for a camera while the other is used to provide the illumination.
3. In spectroscopy, this technique could be used with two spectrographs to continuously monitor different wavelengths.

4. Inquiries concerning this invention may be directed to:

Technology Utilization Officer
Marshall Space Flight Center
Huntsville, Alabama, 35812
Reference: B66-10072

Patent status:

Inquiries about obtaining rights for the commercial use of this invention may be made to NASA, Code AGP, Washington, D.C., 20546.

Source: S. Zeldin of North American Aviation, Inc.
under contract to Marshall Space Flight Center
(MFS-501)